Why Collaborate?
Graham Nicholls, CEO of Extrada Inc.
What’s in a name?

• Extrada the new name for Homeportal
• Better describes what we do
  – Extending trade
  – Extending the internet road
  – Providing extra value from data
• Nothing else has changed
Devices – Who Needs Them?

• More or less
  – Multi-function → less devices?
  – Standardisation → less devices?

• Nothing is at the centre
  – Not one black box
  – Not one PC
  – Not one master controller

• Nothing is at the centre… except services

• Fits with Extrada and OSGi Strategy
Service Delivery with Thin Gateway

Service Package → Service Delivery Object → Control Adapter → Last mile → Gateway → Device

The service logic runs in the hub
Service Delivery with Thick Gateway

The service logic runs partially in the gateway.
OSGi: multi-services (thick) gateway

OSGi gateway
- ProSyst mBedded Server
- Extrada XTN Bundle
- CAD Bundle
- Music Service Bundle

Service Provider Interfaces
Control Adapters
Application Interfaces
UI Adapters
Content Adapters

extrada
connecting the home

© copyright 2004 by OSGi Alliance. All rights reserved.
Thin versus Thick Gateway

**Thin**
- Lower price per unit
- Simple to install and manage
- Applications are updated and maintained centrally

**Thick**
- Supports more complex applications
- Requires fewer bits to cross the WAN
- Can deliver services without being on-line

Both cases need service delivery platform!
How to Solve?

Central features:
• Various remote user interfaces
• Executes application and services logic
• Runs operator’s core services
• Enables service provider access

Basic DIY security use cases:
• When camera detects motion, email is send to platform which feeds email into XTN Hub event-handling. Video feed is stored at platform for later handling
• User can access camera with various UI devices from outside the home and view video feed

WiFi Camera
(e.g. LinkSys, D-Link, Veo). With build-in Web Server, SW-based motion detection and email-trigger. Event-handling and picture storage at Services Platform
Microsoft XP Media Center Edition PC as Entertainment Hub:
• Central storage for video, music and picture files + normal computing
• Connects to TV and Remote Control
• Recording and Time-Shift TV
• Homeportal XTN Connector to MCE runs on PC and allows access to the services and applications on Services Platform and, thus, to other networking elements
How to solve?

Remote Access
- HTTP
- GSM
- GPRS
- WiFi Hot Spot

Network
- Operator's Services Delivery Platform
  - DSLAM
  - Switch
  - PSTN/ISDN Network

Home
- Control Network Adapter
- DSL Modem
- Splitter
- NT
- WiFi Access Point + Router
- Media Center PC

Central features:
- Various remote user interfaces
- Executes application and services logic
- Runs operator's core services
- Enables (third party) service provider access

*Example is with DSL, it would be similar with cable modem

Low-cost adapters as bridge to control network:
- e.g. i.Lon, EIB-UPnP Bridge, X.10 adapters etc.
- service logic runs at Services Platform

© copyright 2004 by OSGi Alliance. All rights reserved.
Service Platform is the Answer

- Networks and application independent
- Trusted broker between service providers, operators, infrastructure, devices
- Services-centric, not customer premises equipment central
- Supports any mixture of ‘thin’ and ‘thick’ gateways, devices and protocols
- Industrial-grade, open standards, robust, reliable, secure and scalable

© copyright 2004 by OSGi Alliance. All rights reserved.
Service Platform is the Answer

- Networks and application independent
- Trusted broker between service providers, operators, infrastructure, devices
- Services-centric, not customer premises equipment central
- Supports any mixture of ‘thin’ and ‘thick’ gateways, devices
Business Strategy: Hub-and-spoke model

- **Point to point services will not work in the long run**
  - Business relationships are too complicated
  - Technologically cumbersome
- **Operators – key position in value chain**
  - Bundles own and third-party services as a trusted partner to consumers
  - Economies of scale (marketing, CRM, billing)
The Application Home Initiative (TAHI)

• Create an environment
  – applications, services and technology are compatible
  – can interact with one another and the consumer
  – many organisations can work together to achieve the common goal

• Offer the consumer
  – “bouquet” of applications and services
  – delivered through reassuring interface with a consistent look and feel

• Bundle the applications and services, saving infrastructure costs and improve the business case
The Application Home Initiative (TAHI)

- Service Aggregation Programme
  - How to deliver multiple interacting services through a unifying portal
  - Working with service providers to define methodologies for building and modelling the business case
- Equipment Management Trial
  - Testing services that look after the consumer’s basic needs.
  - Ensuring equipment never breaks down, the home is safe and warm
The Application Home Initiative (TAHI)

• OSGi framework has been part of the technical architecture to facilitate co-operation and convergence within TAHI
• Extrada XTN Hub is the services platform
Extrada XTN Hub – Technical and Business Solution

Extrada XTN Hub

- b2b Software
- End user portal
- Offer, launch, deliver services
- Manage accounts and billing
- Aggregating content
- Handling smart home devices
- Event response
- Executing business logic
- Sold to operators – Telcos, Utilities, Service Companies
The end-user web allows consumers to log in and view their Extrada environment. They can subscribe to services, view and interact with content...
...control their devices and see their latest billing status for each service

The XTN Digital Services Hub supports user access through Web, WAP and PDA
UI of any style – PDA
UI of any style - MCE

My Services

Add Service
My Services
My Devices
My Content
My Modes
My Calendar

The Venue
Free Music Streaming

MusicStream
MusicChoice

HiFit
Online Fitness

Wash-O-Matic
Pay-per-wash

Energetics
Energy management

Safe'n'Sound
Burglar Alarm

Airbag
02:05

1 of 6 ▲▼
Welcome to SMART.

The SMART service has been developed to help you monitor energy consumption levels within the household.

Water Usage
Gas Usage
Electricity Usage
Water Saving Tips
Energy Saving Tips
More Services
Conclusions

• Success is contingent on companies working together at a technological and commercial level

• bridges need to be built from infrastructure, across networks, to the central server, to external service organizations

• OSGi and Extrada are complementary